

REMARKS/ARGUMENTS

Information Disclosure Statement

Applicant hereby respectfully requests acknowledgment of reference "AC" cited in the Information Disclosure Statement filed on June 12, 2000 and received by the Office June 14, 2000.

Attached herewith are:

- (1) a copy of the PTO Form 1449 filed on June 12, 2000 with the Examiner's partial acknowledgment.
- (2) a copy of missing reference "AC": McKeown, et al., "The Bay Bridge: High Speed Router" which was cited in the PTO Form 1449 of (1) above.

Please send a copy of the PTO form 1449 of (1) above with supplemental acknowledgement of the cited art of (2) above.

Regarding Amendments

In the specification, the paragraph of page 7, lines 10-20, the paragraph beginning at page 15, line 17 to page 16, line 5, and the abstract have been amended have been amended to correct minor errors noted in the Office Action. These corrections are of a clerical nature and do not add "new matter".

In amended Figures 1-3, the figures are labeled as "PRIOR ART."

Claims 1-54 are now pending. No claims stand allowed.

Claims 1-5, 11-15, 21-25, 31-46 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention.

The text of claims 6-10, 16-20, and 26-30 is unchanged, but their meaning is changed because they depend from amended claims.

New claims 47-54 have been added by this amendment and also particularly point out and distinctly claim subject matter regarded as the invention. No “new matter” has been added by the amendment.

Objection to Drawings

FIGS. 1-3 are required to be designated by a legend such as --Prior Art--.

Submitted herewith for the Examiner’s approval is corrected drawings in which FIGS. 1-3 are labeled as “PRIOR ART” in accordance with the Examiner’s suggestion.

Objection to Specification

The specification stands objected for minor informalities.

The disclosure on page 7, lines 18-20 and on page 16, lines 2-3 has been corrected in accordance with the Examiner’s suggestion. The abstract of the disclosure has also been corrected by replacing with a new abstract of the disclosure in conformity with the formality requirement.

The 35 U.S.C. §103 Rejection

Claims 1-46 stand rejected under 35 U.S.C. §103(a) or (b) as being allegedly unpatentable over Duffield et al. (U.S. Pat. No. 6,452,933) in view of Ruszczyk et al. (U.S. Pat. No. 5,615,212) in further view of Beshai (U.S. Pat. No. 6,118,792). This rejection is respectfully traversed.

According to M.P.E.P. §2143,

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.

Furthermore, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Claim 1 defines a method for controlling congestion in a networking device having a plurality of input interface queues. The claimed method comprises (a) estimating the data arrival rate on each of the plurality of input interface queues, and (b) determining, for each polling round, the sequence in which the plurality of input interface queues should be polled and the quantity of data to be processed from each of the plurality of input interface

queues each time the input interface queue is polled, using the estimated data arrival rate on each of the plurality of input interface queues, as recited in claim 1 as amended.

Duffield teaches an adaptive bandwidth redistribution mechanism including a State Dependent Server (SDS) 200 (FIG. 2 thereof (note that SDS is mislabeled as "RPS" in FIG. 2 of Duffield)). When all of the scheduler queues are empty, the SDS 200 is invoked to select a packet from the queues 20a, . . . , 20i, and serves the packets based on a state dependent manner, i.e., making decision based on the current state of variables related to the system (column 4, line 41 to column 5, line 3 of Duffield). However, since Duffield focuses on current state of the system, Dufield's system only determines the *next* queue to be processed based on the current state. That is, the queue which has the longest delay or the least time to overflow at a given moment is processed (column 5, lines 4-25 thereof). For example, a queue having the longest delay is determined and processed at a first moment, and then the next moment, another (or the same) queue having the longest delay is determined and processed. Since the next queue to be processed is determined at each moment, the *sequence* of a plurality of queues 20a, 2b, . . . , 20i for a round of processing (or polling) is not determined.

In addition, as the Examiner correctly noted, Dufield fails to teach estimating the arrival rate for each queue. Since Duffield only uses the *current* number of packets in a queue at a given moment, Duffield cannot estimate a packet arrival *rate* which requires two packet numbers for each queue at different time moments (i.e., the current and the past).

The remaining references, Ruszczyk and Beshai, do not teach either estimating the data arrival rate, or determining, for each polling round, the sequence in which the plurality of input interface queues should be polled using the estimated data arrival data, as recited in claim 1.

Accordingly, Duffield, whether considered alone or combined with or modified by Ruszczyk and/or Beshai does not teach (a) estimating the data arrival rate on each of the plurality of input interface queues, and (b) determining, for each polling round, the sequence in which the plurality of input interface queues should be polled and the quantity of data to be processed from each of the plurality of input interface queues each time the input interface queue is polled, using the estimated data arrival rate on each of the plurality of input interface queues, as recited in claim 1.

Claim 11, 21, and 31 include substantially the same distinctive features as claim 1. Accordingly, it is respectfully requested that the rejection of claims based on Duffield, Ruszczyk and Beshai be withdrawn. In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Dependent Claims

Claims 2-10, 32-33, and 38-40 depend from claim 1, claims 12-20, 34-35, and 41-43 depend from claim 11, claims 22-30, 36-37, and 44-46 depend from claim 21, and thus include the limitations of respective independent claims. The argument set forth

above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable at least for the same reasons.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Request for Allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
THELEN REID & PRIEST, LLP

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Limited Recognition under 37 CFR §10.9(b)

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Attachments